DOCUMENT RESUME

ED 195 300 JC 800 62*

AUTHOR Eschenmann, K. Kurt: And Others
TITLE Using Performance Objectives. Implementing Competency Based Education in Community Colleges, 2.
INSTITUTION Virginia Polytechnic Inst. and State Univ., Blacksburg.
SPONS AGENCY Michigan State Dept. of Education, Lansing. Higher Education Management Services.
PUB DATE [80]
NOTE 22p.: For related documents, see JC 800 623-632.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Behavioral Objectives: Class Activities: Community Colleges: *Competency Based Education: Course Content: *Educational Planning: Job Placement: Lesson Plans: Student Evaluation: Student Motivation: Student Placement: Two Year Colleges: Two Year College Students: Vocational Education: Vocational Education Teachers

ABSTRACT

As second in a series of monographs on competency-based education, this paper provides suggestions for the classroom application of performance objectives in vocational education programs. The characteristics of performance objectives are discussed prior to the presentation of definitions for "performance objectives," "tasks," "conditions," "standards," "competency," "enabling objectives," and "skills." The next sections identify several advantages of performance objectives for instructors (e.g., they facilitate learning and help in identifying prerequisites, selecting equipment, planning on-the-job training, and evaluating students) and for students (e.g., they increase motivation, help students identify prerequisite skills, and provide opportunities for advanced placement). The remainder of the monograph considers additional uses of performance objectives in the areas of: (1) instructional materials development: (2) program content review: (3) technological updating: (4) lesson planning, where performance objectives can be used to insure sequential instruction and to design and implement student learning activities: (5) the selection of instructional support services, resource materials, equipment, and facilities: and (6) student placement in the field for which they have been trained. A three-item reading list is included. (JP)

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USING PERFORMANCE OBJECTIVES

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DANIEL E. VOGLER
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This series of monographs includes the following:

1. Using Performance Goals
2. Using Performance Objectives
3. Developing a Performance Syllabus
4. Evaluating Performances
5. Motivating Performance Learning
6. Developing and Using Performance Modules
7. Addressing Affective Performance
8. Remediating and Enriching Performance Learning
9. Managing a Performance On The Job
10. Maximizing Teaching/Learning

This is one of ten monographs in a series relating to IMPLEMENTING COMPETENCY BASED EDUCATION IN COMMUNITY COLLEGES developed at Virginia Polytechnic Institute and State University. This project was developed under a grant to St. Clair County Community College and was funded by the Michigan Department of Education, Higher Education Management Services, Occupational Education Unit. Project #33B9-7447-2.

Using Performance Objectives

Do you remember the time when you first heard of performance objectives? Your initial reaction may have been one of concern, excitement, or apprehension.Then came the day when you started to learn all about performance objectives—what they were, how they were written, and the differences between good ones and bad ones. At first the task may have seemed hopeless. The terminology was new; and it seemed as though conditions, standards, and performances would never properly fit themselves into the objective. With practice and determination you finally succeeded. Congratulations!

But wait a minute. That victory seems so far away. How long has it been? Six months, one year, fourteen months, two years? Time sure flies. Perhaps a review would be helpful.

Performance Objective Review

First, performance objectives are written for the students and, as such, should use terms that are easily understood. Obviously, if students do not know what is expected of them, it is impossible for the instructor to obtain an accurate measure of their success.

Second, performance objectives must match the stated and intended goals of the program. If program goals are the teacher's target, performance objectives must provide a clear map for the student to hit the target. Without a map showing the way (performance objectives), students could only arrive at their intended destination (program goals) by chance, if at all.

Third, performance objectives must be measurable. Both teachers and students need to know whether their efforts were successful. The use of performance objectives does not decrease this concern. Unless student behavior can be precisely measured, valuable instruction time is wasted.

Fourth, performance objectives are comprised of standards, conditions, and performance elements. In some instances the term **performance** is replaced by **behavior**. **Standards** are replaced by **criterion of reference**, or **conditions** are replaced by the word **given**. Regardless of the terminology, all performance objectives must clearly describe for the students: (a) what they are expected to do, (b) the conditions under which they are to demonstrate the activity, and (c) how well the activity must be completed.

Fifth, since performance objectives are designed to measure student competence, or lack of it, they must be written to measure the end product and not the process. Those teachers opposed to performance objectives often lay the criticism that utilizing performance objectives involves too much of their time and would necessitate writing a performance objective on every imaginable activity. This usually occurs when the performance objectives are used to measure the process. Remember, performance objectives should be written to describe the product of the student's efforts!

Sixth, performance objectives should clearly identify what is important for the student. Each of us, at one time or another, has spent the night before a quiz or examination "cramming" textbook information. Our purpose was to try to correctly guess what questions would be asked on the test. After all, why study information that is not needed? Unfortunately, we were not always successful and often left the examination saying, "I spent three hours studying collective bargaining, and there wasn't one question on the test dealing with it." By using performance objectives, students do not have to "second guess" the instructor since only the student's ability to perform some activity, specified in advance, is measured.

Seventh, performance objectives permit teachers to make more than one decision concerning the student's sucess. Performance objectives measure the product and not the process, thereby permitting students to perform a task with flexibility based on both individual preference and ability. Provided safety is not ignored, students are permitted to reach an objective using their own creativity and imagination.

These are just a few characteristics of performance objectives. Some may be "old stuff" while others may be new. None, however, should sound far-fetched or contradictory.

Working Definitions

Many of the terms used in this monograph may already be familiar to you. The important thing to remember is the way the term is used in the examples rather than the specific definition. Consequently, the purpose of reviewing these terms is not to force conformity but to establish a uniform understanding of the information provided. Below are enumerated definitions for the key terms used in this monograph.

1. **Performance objective**—identifies the task to be performed, the conditions under which it must be performed, and the quality of the

performance needed to obtain instructor's approval. Example: Using appropriate tools, timing light, and service manual, time an engine. Timing must meet manufacturer's specifications.

2. **Task**—a logical part or component of any work activity associated with an occupation. Tasks are recognized units of work associated with an occupation and can be measured and observed. Examples: (a) install spark plugs, (b) take rectal temperature, or (c) type a business letter.

3. **Conditions**—identifies all supplies, equipment, resources, and other aids the student may use to demonstrate competence of a particular task. Example: using appropriate tools, spark plugs, and technical manuals.

4. **Standard**—a specified level of behavior used to measure the student's performance in completing a task. Examples: (a) with 100% accuracy, (b) + or - ¼", (c) with no errors, or (d) within 5°.

5. **Competency**—the ability of an individual to perform a certain activity within an occupation. Examples: (a) tune up a car, (b) hang a suspended ceiling, or (c) run a series of chemical analyses on a blood specimen.

6. **Enabling objective**—identifies the essential skills and knowledges a student must have to satisfactorily meet the standard identified in the performance objective. Examples: Performance objective: Given necessary equipment, the student will set point dwell. Performance will be satisfactory if dwell meets manufacturer's specification. Enabling objective: (a) be able to identify dwell setting, (b) be able to hook up dwell meter, and (c) be able to interpret service manual.

7. **Skills**—the ability to use knowledge and demonstrate dexterity and coordination in performing a specific task or step associated with the performance of a task. Skill is referred to by a level (high-skill level or low-skill level). Examples: (a) uses hand tools well, (b) performs tasks and steps of tasks efficiently, or (c) can work with close tolerances.

Advantages of Performance Objectives to Instructors

If you want people to use a particular product, you must first convince them of the product's worth. Salespersons have used any number of sales pitches to achieve this end. Some were successful in using the "hard sell" approach. In either case, the criterion for their success was making a sale.

Regardless of the technique used, all successful salespersons must

know their product. Product knowledge is demonstrated in the salesperson's confidence, smile, personality, and poise. The same principle holds for instructors. Therefore, if we know our product (content), our customers (students) will see us as being good instructors. True? Well, only partly true. Unfortunately, knowing the product is only part of the success. We must also be able to market the product if we are to be successful.

This parable is not new; the comments are all too familiar. "Yes, that Sinclair is a first-class dental hygienist, but he has problems getting it across to the students." What does "getting it across to the students" mean? How is it measured? Do the students do poorly on their tests? Is there a high drop-out rate from the program? Is student discipline a problem? Let's take a look at performance objectives and see if they can help the teacher answer some, if not all, of these questions.

Facilitate Learning

Through the effective use of performance objectives, the classroom instructor assumes the role of a learning facilitator. No longer are instructors assumed to be the only dispensers of knowledge. Consequently, the instructor is not held solely responsible for all information that should have been dispensed in class. Instead, the instructor assumes the role of providing students with some appropriate information and guiding them to supplemental information sources.

Closely related to the role as a learning facilitator is the idea that instructors now assume that students will be responsible for much of their own learning. In classrooms not utilizing performance objectives, students are limited in their responsibility to assume the major role of learning for two reasons. First, they can learn only the information provided them by their instructor. Second, they learn only those concepts pertaining to the information as deemed important by the instructor. Performance objectives free the students to pursue all information to meet the standards identified in the performance objective.

Identify Prerequisites

Performance objectives aid the teacher in identifying those prerequisites essential for successful program completion. By carefully reviewing the expected student performance, instructors can review objectives and identify basic skills essential for student success. If entering students do not possess these recommended skills, the in-

structor then knows these skills must be taught first. By administering prerequisite tests to all entering students, weaknesses are identified prior to the specific content instruction. Additionally, these tests may be shared with other educational specialists, including instructors in reading, math, and English, for use as a basis of remedial problems. Guidance counselors could also use performance objectives to help in their screening and referral processes.

Select Equipment

In addition to serving as the basis for prerequisite screening, performance objectives permit the teacher to develop extensive equipment/tool lists for shops and laboratories. We have all at one time or another received funds to replace worn-out, missing, or obsolete equipment. Spending these funds is usually not one of our initial concerns, but purchasing the most efficient piece of equipment may be. By reviewing the performance objectives, teachers have a partner in making decisions on equipment purchases.

Plan On-the-Job Training

The use of performance objectives also enables the teacher to coordinate out-of-school facilities with in-school facilities. If larger and better equipped facilities were available, programs could often be expanded, providing the students with a broader exposure to an occupation. In many instances the high cost of equipping many trade and technical shops prohibits this expansion. A solution to this problem can be implementing new or expanding existing cooperative education programs. Performance objectives could increase the effectiveness of these programs by ensuring that the same high standards expected of the students in school are used to evaluate their success out of school. This approach prevents representatives of industry and labor from using substandards as a measure of student success.

Facilitate Evaluation

Finally, performance objectives provide an objective basis for student evaluation. A criticism faced by many instructors is that a student's evaluation is not always based on performance. Students having poor skills who are liked by the instructor often do better than students having higher skills but who are not popular with the instructor. Using performance objectives eliminates this criticism. Success is based on the student's ability to demonstrate a specified performance at an established level of proficiency. More specific information is provided in another monograph in this series related to

evaluation.

These are just a few of the advantages of performance objectives. You probably know many more that could be added. Regardless of the size of the list and how they apply to individual teaching techniques and styles, the point remains. Performance objectives can contribute to more effective and efficient classroom instruction.

Advantages of Performance Objectives to Students

For teachers to successfully implement performance objectives as part of their instructional program, their students must also be willing to accept and use performance objectives. Unless teachers take the time to explain to their students what performance objectives can do for them, any effort to incorporate performance objectives will be wasted. Performance objectives are designed to aid and assist both teachers and the students. Rejection by either party spells doom. It is the teacher's (salesperson's) responsibility to explain to students (customers) how a product (performance objectives) can make their lives (as students) easier. More importantly, the students must also question how they ever were successful without the product. To increase the chance of a successful sale (students eagerly accepting and using performance objectives), a review of some of the designed benefits of performance objectives from the student's point of view follows.

Increase Motivation

One of the problems some students experience is low motivation. There are any number of reasons causing poor student motivation. These may include (a) not really wanting in the program in the first place, (b) being in the program because it was the only one available, (c) having personality conflicts with the teacher, or (d) not being able to adjust to the particular school environment. While implementing performance objectives will not automatically increase student motivation, they can help the teacher reduce and/or eliminate some of the barriers leading to low motivation. Since performance objectives are usually provided to the student in advance of instruction, the student's uncertainty of what will follow is eliminated. The students know from the very beginning what will be involved in the course, how much material will be covered, what they will be expected to do, and how well they must perform. As a result, students spend less of their time wondering what is next and more of their time mastering essential skills.

Identify Prerequisites

Performance objectives also identify for the student the essential prerequisite skills needed to succeed in the course. Each of us can remember a time when our parents told us, "Get down from that ladder before you fall and hurt yourself!" Not believing in their wisdom, we waited for them to leave, crawled up the ladder, and promptly fell, resulting in bruises or even breaks. Sure enough, we paid a dear price for the freedom of finding out for ourselves. Students are prone to do similar things. They fail to heed our caution at the beginning of school and may not spend the time to learn the principle of Ohm's law. Feeling this has little to do with their development as an electrician, they skim by the first weeks of school only to experience difficulty or even failure.

By providing students with all the performance objectives of a particular course at the very beginning, our insistence on mastery of particular skills can be double checked by reviewing the types of performances expected in the immediate and distant future.

Provide a Test-Out Option

Closely linked to this advantage is the idea that students may be provided with the opportunity to "test out" of certain subject areas. It is not uncommon to find students moonlighting, using skills previously learned to earn money or supplement their existing income. To the automotive mechanic students, this could mean using Dad's garage on Saturday to do tune-ups, oil changes, lube jobs, and brake overhauls. These skills may not yet have been covered in class but may have been mastered through initiative and practice. Nevertheless, performance objectives provide the students with the opportunity to demonstrate to their instructor which skills they have already developed, thereby not wasting class time "learning" what they already know. This approach helps the teacher save valuable instructional time, while permitting the student to place extra effort in practicing other skills important for the particular occupation.

Develop Specializations

The extra time made available by testing out of certain activities may permit the students to develop specialties within their occupation. For example, some students may be able to demonstrate all the minimum competencies needed by a worker in a particular occupation in less time than normally allowed in the course. Instead of assigning these students repetitive activities, the instructors allow the students to develop expertise in a particular area. For this approach

to be successful, instructors must inform the students of the option. Instructors, having neither the time nor the equipment to conduct these activities, may want to utilize a cooperative arrangement by placing the student in an industry, another school, or another program where the desired skill can be mastered.

Facilitate Evaluation

Another advantage of performance objectives to the student is their overall class evaluation and subsequent assignment of grades. Students desire to be treated fairly and do not like to see their efforts go unrewarded. This is especially true if their future depends on their efforts being recognized and accurately documented. Even the most experienced instructors have probably had students questioning examination answers. Performance objectives can eliminate uncertainty, as students know almost immediately if their performance met their instructor's standards.

In the assignment of grades, any number of methods can be used. One example is to specify that the minimum skills for an occupation translates to the letter grade **D**. Students performing tasks that are average for the occupation would receive the letter grade **C**. Tasks above the average but not all those required for perfection would be assigned the letter grade **B**. Students demonstrating competence in all tasks associated with an occupation would be assigned an **A**. By this method, students are evaluated and graded on how well they have mastered their occupation and are not subject to the whims of their instructor. In some instances, instructors may even permit students to contract for a grade. This approach is elaborated in the syllabus and remediation monographs.

In summary, the use of performance objectives provides the students with opportunities not usually associated with the other instructional techniques. These opportunities may be the basis for convincing students (customers) that performance objectives can make their lives as students more fulfilling and productive.

Program Orientation

Congratulations! The initial step to successfully using performance objectives has been completed. Welcome aboard for a new step beyond the limits of instructor and student advantages. After all, we are not about to look a gift horse in the mouth but maybe, just maybe, there is more. You are right. There is more—more for both you and your students! Since you have put forth so much effort to this point, let's discuss some additional uses of performance objectives.

To be a teacher requires students, and students must be selected. Can performance objectives help in student selection?

You bet they can! The use of performance objectives lends itself well to helping teachers either select or assist in selecting and recruiting students for their programs.

As mentioned earlier, performance objectives are extremely helpful when developing and identifying essential prerequisite skills. By identifying these skills, the teacher has the basis for developing an occupational package for new students. Each of us has probably had students register for our course knowing very little about the occupation. This is to be expected. Unfortunately, many students enter a program holding the wrong viewpoint of the occupation. To provide these students with an accurate description of their program, teachers should develop a packet of related materials depicting the occupation as it actually exists. By using the performance objectives as a guide, one can be sure if the information is a true representation of the occupation.

Performance objectives can be used by the teacher to develop a program-orientation package. Additionally, orientation information can provide the students with a preview of activities that will occur during their training period. The students have the opportunity to gain an actual viewpoint of the occupation, along with the new environment and equipment which will be used in teaching the essential skills. These efforts can reduce the anxiety and initial fear of new students. After having been exposed to the orientation and occupational packages, some students may decide a program was not what they expected. Should this occur, they should be provided the opportunity to withdraw from the program without penalty.

Content Review

All educators should be concerned with program content and relevancy. Failure to do so can result in student discipline problems, program dropouts, and low placement rates. The severity each of these has in leading to program extinction makes it necessary that teachers continually work to ensure their programs provide their students with relevant information and skills. Knowing the importance of relevancy to our programs permits us to see how performance objectives can aid in ending this problem.

Each of us probably has spent numerous hours attempting to upgrade our program content. There is no specific procedure to be followed in this process, and our efforts are only successful if input

is received from individuals knowledgeable in both the theoretical and practical aspects of the occupation. One method used by many teachers involves meeting with various workers in the occupation and asking for their suggestions as to what employees need to know. A considerable amount of time and effort is required: workers and employers must be identified and contacted; interviews must be made; and on-site visits to observe the latest technology in the occupation are required. Additional time is then required to tabulate, categorize and sort and summarize the information in a form that the teacher can use. Only then can the instructor start to change a program. Prior to the visits by workers and employees, the teacher can prepare a listing of all the performances objectives used in this program of study. These lists can then be reviewed by workers and employers, checking to see that all essential entry level tasks are included and that the standards used to measure the student's performance are adequate. Tasks omitted, but identified by the workers as essential, may be added. With this procedure, the time required of the teacher is reduced considerably. Consequently, workers and employers may be more cooperative since their work involvement requires only review and not development.

Technology Update

Class sessions and school years are rigid, but technology changes at an alarming rate. To illustrate, information used in advanced courses for computer technicians fifteen years ago is now expected to be mastered by first-year students. Unfortunately, the amount of time required to teach the technology has increased only slightly. Obviously, to make way for this new technology, some of the old must be discarded. Closely related to the problem of technological change is the problem of keeping abreast of task frequency; that is, situations experienced infrequently by workers seven years ago may now be an everyday occurrence. Workers today can be faced with problems of greater technical difficulty more frequently. How can a teacher deal with this problem? One way is to provide both workers and employers the opportunity to help the instructor make decisions. By obtaining their input, the instructor gains some understanding of those tasks most frequently performed in the occupation. To be sure graduates are successful and competent, crucial performance objectives in your program should be emphasized, along with an insistence that the student be able to demonstrate competence.

Alternate Delivery Strategy

Finally, after having identified all essential tasks associated with a particular occupation, performance objectives can be used as the basis to develop instructional modules. Specific information on developing and using modules is provided in the monograph related to this topic.

Lesson Planning

Lesson planning is the key to effective instruction. Ironically, lesson planning is the one area on which many teachers spend the least amount of time. Oh sure, we all have lesson plans. After all, many school administrators require them! Depending on the teacher and the topic at hand, lesson plans may range from neatly typed pages to a brief outline hand scribbled on the back of a school memo pad. To some, the instructor with the neatly-typed outline may be thought to be the better teacher. A false assumption. To others, the instructor with the hand scribbling does just as well because of twenty-five years' experience. Anyone with that much experience must surely know how to teach. Another false assumption. The point to remember is that no one lesson plan format will serve the needs of all teachers. Preventing the teacher from using a comfortable style or forcing a style because of uniformity in design accomplishes little. Teachers forced to use lesson plans not of their own design will teach from the "cuff." Therefore, regardless of the lesson plan format, some advantages of performance objectives relate to lesson planning.

Sequence Instruction

The basis of all lesson planning involves introducing the unit. To introduce a unit on brake systems, the auto mechanics instructor should first review all performance objectives relating to the car's braking system and group them into a logical fashion. The grouping might break into daily lesson plan topics of (a) disc brakes, (b) drum brakes, (c) brake hydraulic systems, and (d) brake system trouble shooting. The amount of time spent on each topic would be dependent upon student ability, difficulty of the competency, and resources available. The content to be included in each lesson plan is easily identified by reviewing the standards of proficiency required of the student. If students are required to replace worn brake pads, resurface rotors, and bleed the system, classroom activities must be designed to provide the student with the opportunity to experience and master these skills.

A similar procedure is used in establishing the sequence of the units as well. It would be useless to teach a unit on engine overhaul to students who don't know even the basic operation of an internal-combustion engine. It would also be futile to require a student to set the timing on a car before finding a timing mark or loosening a distributor. Instructors should use their experience to identify all major components of work within their occupation and teach them from the simplest to the most complex. Specific tasks within each of the components should be ordered and taught in the same manner.

Identify Learning Activities

Teachers can also use performance objectives to design and implement student learning activities. Contrary to many popular beliefs, these activities may or may not be individualized. By identifying selected related objectives and packaging them with appropriate supplemental information, students are afforded the opportunity of working independent of their teacher. One example would be the repair of a hydraulic jack. To implement a learning activity concerning the repair of a hydraulic jack, the teacher would follow a simple step-by-step procedure as indicated below.

1. Assign all class members to a team.
2. Have each team read appropriate materials concerning the repair and rebuilding of a simple 3-ton hydraulic floor jack.
3. Administer a test to ensure the student's mastery of the appropriate material.
4. Assign a defective jack to each team. If possible, assign a jack to each student in the team.
5. Provide each team with the necessary tools and an appropriate performance objective to disassemble and reassemble the jack.
6. Meet with each group and check its answers.
7. Confirm competence or provide remediation.

This activity would provide the student with a hands-on experience, permitting an inside view of the hydraulic jack's components. Upon completion, each team could be directed to related activities. Once all teams have completed the assigned activities, the teacher could conduct a class discussion on the same topic. As the students have already dissembled and reassembled their own jacks, many of the terms and principles used in the class discussion would be familiar.

Any number of learning activities could be designed by the instructor so that the students can successfully complete the performance objective. In the case of the hydraulic instructor, all class activities

are deemed appropriate if they help the student develop the skills to disassemble, repair, and reassemble a hydraulic jack. More ideas on learning activities may be found in another monograph by this title within this monograph series.

Support Service Selection

Another decision teachers face is deciding which and how many instructional-support services should be used. These services include textbooks, supplementary materials, appropriate technical references, audio-visual materials, equipment, and facilities. The amount of technical information available on many occupations makes these decisions difficult. If each of us had an unlimited budget to purchase unlimited materials, the dilemma would be reduced. Unfortunately, many expensive materials are being placed on the market at a time when budgets are being cut.

Choose Resource Materials

To help identify those materials best suited to students needs, the instructor should answer a number of questions. How can I get the most for the least amount of money? What are the difficult areas of the occupation that require supplemental materials for the students to demonstrate competence? In what form should these materials exist? What are my weak areas in the course, and what supplemental materials are available to better the course? What is the current status of technology within the occupation, and what materials or resources reflect this technology? This list could go on and on, but the point remains. Performance objectives can help instructors answer some of these questions.

First, by reviewing all the performance objectives associated with the occupation, the instructor can obtain a profile of the essential content to be covered. The objectives can also identify the depth of the material to be covered. By knowing this information, the instructor can make a "content list" for reviewing textbooks. By reviewing each task taught and comparing it to the resource material content list, the appropriateness of the materials can be identified. Information required in the course and discussed in resource materials should receive a check. Information needed by the students to successfully complete the course, but omitted in the resources material, should be left blank. A further analysis could be made on the basis of how detailed the resource material information was in discussing the various topics. Figure 1 can serve as a guide for reviewing resource materials based on existing performance objectives.

Example

Resource Material Review Form

Occupation: **Masonary Trades** Evaluated by: **Mr. Trowel**

PERFORMANCE OBJECTIVE	RESOURCE MATERIAL #1 INFORMATION COVERED			RESOURCE MATERIAL #2 INFORMATION COVERED			RESOURCE MATERIAL #3 INFORMATION COVERED		
	Weak	Adeq.	Sup.	Weak	Adeq.	Sup.	Weak	Adeq.	Sup.
Build Corner Brick Columns									
Build Rectangular Brick Columns									
Build Round Brick Columns									
Build Square Brick Columns									
Clean Brick Walls									
Construct Brick Veneer Walls									
Lay a Header Course									
Lay a Rowlock Course									
Lay a Sailor Course									

Figure 1

If, after completing the analysis, the materials prove to be weak, additional materials could be reviewed. If more than one resource meets the course needs, the decision to buy could be made based on: (a) cost, (b) textbook availability, (c) service provided by the company, (d) life expectancy of the textbook, and (e) reading level.

Select Equipment

A similar evaluation procedure could be used to aid in decision making concerning the purchasing of new or additional equipment. The specific format may be different from that used to evaluate resource materials, but the aim is to see how well the equipment assists the students to meet the desired level of competence as identified in the performance objective. The advantages in using performance objectives in making these decisions are numerous. The rationale for purchasing additional equipment is made on the basis of occupational practice rather than individual preference. Once the performance objectives have been reviewed and documented by incumbent workers, then specific equipment may be needed to test student competence in each task. It would be of little value for instructors to implement performance objectives based on relevant occupational tasks if the appropriate equipment necessary to test student competence was not available.

Plan Facility

The use of performance objectives can also help instructors design and plan their respective laboratory facilities. By reviewing each of the performance objectives associated with a specific program, instructors are able to design facilities that utilize the most efficient space within their existing sites.

While performance objectives are helpful to experienced teachers in existing programs, they can also aid new teachers or planners of new school facilities. Nothing can be more frightening than to be a new instructor assuming a position within an existing program—nothing, that is, unless an inexperienced instructor is hired to develop a totally new program. These instructors are forced to cope as best they can in identifying appropriate textbooks, in selecting equipment and supplies, and in designing laboratory facilities. After two or three years in the classroom, they may finally have a quality program. Unfortunately, instructor and students all suffer during this trial period. Programs producing graduates with deficient skills are doomed even before the program has a chance to get off the ground. With performance objectives serving as a guide, the new in-

structor at least has a chance. These objectives identify content to be taught, equipment needed, and the basis of a well-equipped and well-designed shop. More importantly, instructors have the opportunity to reach program quality at an earlier date.

Student Placement

Recent vocational education legislation emphasizes placement of students in the field for which they have been trained or in a closely related area. This emphasis has forced occupational educators to assume an active role in the placement of their graduates. In the past, occupational instructors had a dim view of placement officials and provided little support. With placement rates now being used as the basis for justifying their programs, occupational educators are encouraged to assist in these activities.

Documentation of student competence through the use of performance objectives can serve as a valuable aid to instructors, students, and school placement officials. By using performance objectives to develop, prepare, and document student competence, placement is made a little easier. Following are several ideas that can be used to help in the placement of students.

Each of us at one time or another has been scheduled for a job interview. Whether we were responding to an official job notice or learned of a position opening by another means, the job interview with the potential employer was a necessary part of the hiring process. In addition to the interview tips of arriving on time and having a neat appearance, we knew that it was essential that we convince the potential employer that our experience matched the job qualifications. Unfortunately, individuals having weak occupational skills but possessing the ability to "talk a good line" were sometimes hired over those possessing higher occupational skills and weaker verbal skills. To overcome this deficiency, instructors should assist students in developing an occupational resume. This resume should be derived from performance objectives, identifying for the employer those skills the student possesses and the level of competence demonstrated in each. Various methods and procedures can be used to document student competence. Obviously a format that is neat and appealing to the employer is essential, but the true value of the occupational resume is its content. Content can be enhanced if the resume includes the following information: (a) type of activity the student demonstrated, (b) level of competence demonstrated performing the activity, (c) date student performed the activity, (d) comments con-

cerning the student's performance, and (e) verification by instructor.

Closely related to the development of an appropriate employee-related OJT program is advanced placement. The idea of starting at the bottom and working to the top in not new. Individuals having "made it to the top" took pride in themselves and their accomplishments by adding that they started at the bottom. For many industries this concept became the basis of their reward system. Part of this reward system, however, was based on the experiences gained by the individual "on the way up."

With the emergence of vocational programs, students have the opportunity to gain (within the span of their occupational education program) experience that normally would require years on the job. Because of this opportunity, there is no longer any reason for all to start at the bottom. To do so would cause a morale and boredom problem with the worker. At the same time, the limited experience gained by the students does not warrant placing them at the top. While their general experience is important, it is not the type of experience that enables them to understand the total operation of a specific business. As a result, students having previous experiences should be placed somewhere between these two points. If college graduates are provided the opportunity to obtain mid-level management positions, why shouldn't vocational graduates have the opportunity to start their careers somewhere other than the bottom? The obvious question remains, where?

By providing the employer with the student's occupational resume, a decision concerning advanced placement can be made. By matching the student's demonstrated competence in specific tasks with the strengths and weaknesses of his business, the employer can usually identify where the student would best fit into the production operation. In some instances, if a specific level cannot be immediately identified, the employer can develop a mini-OJT program, providing the necessary information needed to make this decision.

Finally, performance objectives can be used by the instructor, student, and employer to identify an occupational career ladder. By identifying all the specializations within an occupation and the necessary skills associated with each, the student is better able to see what the future holds. Without this opportunity, the student has a tendency of wandering within the occupation looking for opportunity. Since "the grass is always greener on the other side," the students may even leave the initial job in search of occupational happiness.

Without previous occupational experience, movement into an unrelated field usually places the student even farther down the occupational ladder. This makes movement to the top more difficult. In these instances employers, students, and instructors suffer. Employers experience high turnover; students experience a feeling of occupational indecision and hopelessness; and the occupational program receives undue criticism as being costly and not providing essential workers for the future.

Student placement is truly an important issue facing all occupational educators. Performance objectives alone cannot insure success in this area. However, by using performance objectives to document student skills for employers and showing how these skills can lead to occupational success, student placement becomes an aid to positive program advertising.

Annotated Outreach

The teacher desiring to utilize performance objectives is indeed fortunate. For the past decade, various educational agencies have developed performance objectives on a variety of occupations. As a result of their efforts, the time-consuming job of objective development is bypassed. These references may be helpful when designing an educational program using performance objectives.

Gronlund, Norman E. **Stating Behavioral Objectives for Classroom Instruction.** New York: The MacMillan Company, 1970.

The Center of Vocational Education. **Develop Student Performance Objectives: Module B-2.** Columbus: The Ohio State University, 1977.

The Center for Vocational Education. **Develop a Unit of Instruction: Module B-3.** Columbus: The Ohio State University, 1977.

Sign Off

Performance objectives are at the heart of any competency based education program. Without performance objectives, one does not have a competency based program.

This monograph has **not** provided information on how to write performance objectives. Rather, it has centered on the application of performance objectives. Considerable information was provided to help instructors and students participate effectively and efficiently in a CBE system. In the final analysis, performance objectives can be a super decision-making partner.

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JAN 16 1980